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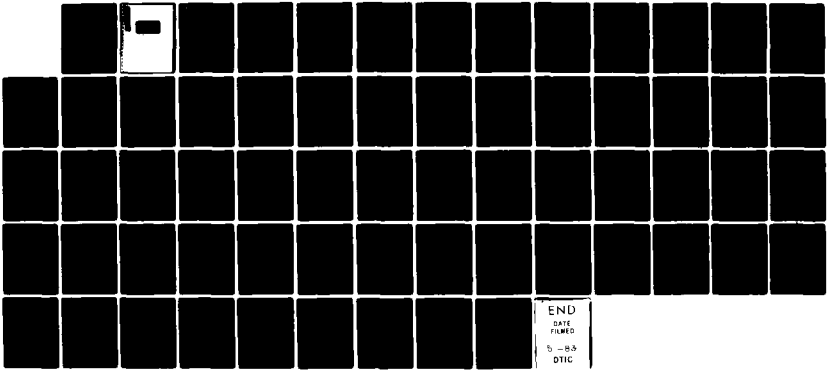

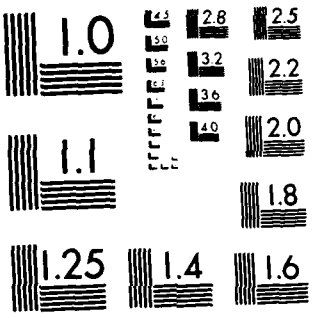

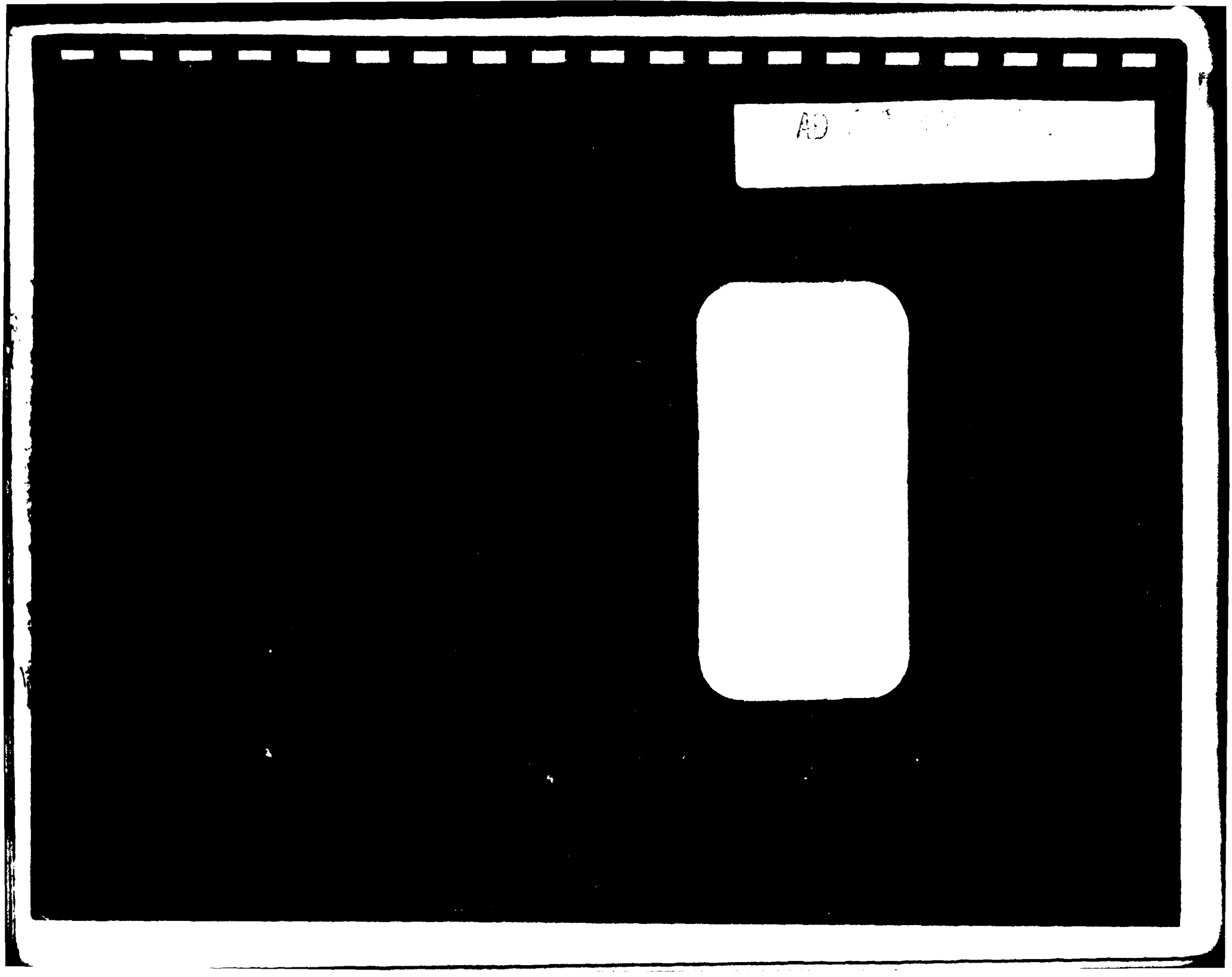
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FINAL

ARCHAEOLOGICAL SURVEY AND TESTING, BETTENDORF LOCAL FLOOD PROTECTION PROJECT, SCOTT COUNTY, IOWA

Prepared for:

U.S. Army Corps of Engineers
Rock Island District
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September 1980

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ABSTRACT

An archaeological field survey was conducted of two areas, a proposed borrow pit (Project Area A) and a proposed levee along the Mississippi River (Project Area B), within the Bettendorf vicinity, Scott County, Iowa, for the U.S. Army Corps of Engineers, Rock Island District. A stone and gravel quarry located adjacent to the proposed borrow area (Project Area A) may be historically significant on the basis of its being the earliest knwon example of this kind of industrial development in the Bettendorf area. It has been recommended that the quarry be avoided during soil removal activities. A prehistoric site that consisted of four non-diagnostic artifacts scattered over a very wide area was also discovered in Project Area A. Subsurface shovel testing revealed no additional cultural material or in situ archaeological features. It was determined that the site possesses no cultural or archaeological significance and no further investigation is recommended. The archaeological survey of Project Area B revealed no significant cultural or archaeological materials. The report includes a discussion of the environmental setting, a summary of the areal prehistory and history, a detailed description of the survey methodology, a description of the project results, and recommendations for further work in the area.

MANAGEMENT SUMMARY:
ARCHAEOLOGICAL SURVEY AND TESTING,
BETTENDORF LOCAL FLOOD PROTECTION PROJECT,
SCOTT COUNTY, IOWA

From May 1 to May 5, 1980, archaeologists from WAPORA, Inc., Cincinnati, Ohio, conducted an intensive survey and testing program of the proposed Bettendorf levee right-of-way and borrow area, in Scott County, Iowa. This report summarizes the results of the background literature search and the field survey. The field survey was conducted within a framework of the regional environment and a cultural overview, both prehistoric and historic, for the area.

The fieldwork and report preparation were conducted under the terms of a contract between WAPORA, Inc. and U.S. Army Corps of Engineers, Rock Island District. Ms. Marlesa A. Gray served as Principal Investigator for the project and Barbara Huels provided technical field assistance. Information on site locations in and near the project area was provided by Stan Riggle of the Iowa State Historic Preservation Office and Dr. Duane Anderson, Office of the Iowa State Archaeologist. Carol Hund and Shirley Schwieters of the Putnam Museum, Davenport, Iowa, provided access to museum collections and files. Information on the local prehistory and history was provided by Ferrel and Karen Anderson, of Davenport. The project monitor for the Corps of Engineers was Roy Eichhorn.

Requirements of the contract included a literature search and background review of pertinent information on known site locations and an overview of the regional prehistory and history. Upon completion of the background research, an initial survey was to be conducted to locate sites likely to be affected by the project. Any located sites were to be sufficiently tested to allow for a determination of eligibility to the National Register of Historic Places. The final task was to prepare a report summarizing the results of the background literature search and the field survey, with special consideration being given to the question of eligibility to the National Register of each located site (see Appendix A, Scope of Work).

It was found that one previously recorded cultural resource, an historic nineteenth century stone and gravel quarry, is located on the east edge of the proposed borrow pit (Project Area A). The quarry is significant because of its role in the economic development of the region and the fact that it is the earliest remaining documented quarry in the area. The quarry should be avoided, if possible, during soil removal activities. If an adverse effect is unavoidable, then the Corps of Engineers should request a determination of eligibility to the National Register of Historic Places for the quarry on the basis of its economic significance to the area.

In addition to the quarry, one prehistoric site was found within Project Area A. The site consisted of four non-diagnostic prehistoric artifacts found scattered over an area of several thousands of square meters. Subsurface shovel testing revealed no evidence of <u>in situ</u> arti-

facts or other cultural deposition. On the basis of the scattered deposition of the artifacts and its lack of cultural integrity, it was determined that this site is not culturally significant and does not warrant further archaeological investigation.

No significant cultural resources, either prehistoric or historic, were located in the proposed Bettendorf levee right-of-way. It was discovered that the area has been extensively subjected to both filling and grading activities. If any significant cultural resources had been present in the area at one time, they have now been disturbed beyond recognition. Therefore, the construction of the Bettendorf levee will not adversely affect any significant cultural resources.

This project was undertaken to ensure compliance with the following Federal legislation: the National Historic Preservation Act of 1966, as amended (PL 89-665); the National Environmental Policy Act of 1969 (PL 91-190); Executive Order 11593 (Protection and Enhancement of the Cultural Environment); National Register of Historic Places, Determinations of Eligibility for Inclusion (36 CFR 63); Advisory Council's Procedures for the Protection of Historic and Cultural Properties (36 CFR 800); and Identification and Administration of Cultural Resources (33 CFR 305).

INTRODUCTION

From May 1, 1980, through May 5, 1980, WAPORA, Inc. conducted an intensive archaeological survey and testing program within areas to be affected by the Bettendorf Local Flood Protection project, Scott County, Iowa. This report summarizes the methodology and the results of the fieldwork, and provides an overview of the regional prehistory and history as a contextual framework for the survey and testing program.

The fieldwork and report preparation were conducted under the terms of a contract between WAPORA, Inc. and the U.S. Army Corps of Engineers, Rock Island District. Ms. Marlesa A. Gray served as Principal Investigator for the project and Barbara Huels provided technical field assistance. Information on site locations in and near the project area was provided by Stan Riggle of the Iowa State Historic Preservation Office and Dr. Duane Anderson, Office of the Iowa State Archaeologist. Carol Hund and Shirley Schwieters of the Putnam Museum, Davenport, Iowa, provided access to museum collections and files. Information on the local prehistory and history was provided by Ferrel and Karen Anderson, of Davenport. The project monitor for the Corps of Engineers was Roy Eichhorn.

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All artifacts, field and analysis notes, original photographs, and a copy of the final report will be curated with the Office of the Iowa State Archaeologist, Iowa City, upon acceptance of the report.

PROJECT LOCATION AND ENVIRONMENTAL SETTING

LOCATION AND PROJECT DESCRIPTIONS

The two areas surveyed under the terms of this contract are located in the eastern half of Iowa, opposite the confluence of the Rock River, in Illinois, and the Mississippi River. Both areas are situated in or near the city limits of Bettendorf, in Scott County.

Project Area A consists of approximately 20 acres of city-owned land in the SE 1/4 of the SE 1/4 of Section 10, Range 4 East, Township 78 North. It is being considered as the proposed borrow area for the project. The proposed levee right-of-way will extend along a corridor 50 feet wide from 10th Street east along the Mississippi River bank to the confluence of Duck Creek and the river at 42nd Street, then north to the Davenport, Rock Island, and Northwestern Railroad right-of-way. On the north side of the railroad tracks, the levee will continue along a corridor parallel to and 200 feet east of 39th Street to State Street, where it will turn west and follow State Street for a length of 600 feet. A permanent levee already exists from Station 0+00 almost to Station 100+00 and a temporary levee continues from that point to between Stations 110+00 and 120+00. Survey procedures were concentrated on that remaining portion of the corridor from around Station 120+00 to Station 160+00 where there has been no previous disturbance because of levee construction. The two project areas are shown in Figure 1.

PHYSIOGRAPHY, SOILS, AND LITHIC RESOURCES

The two project areas are located in a physiographic setting known as the Galesburg Plain, part of the Till Plains section of the Central Lowland province (Leighton, Ekblau, and Horberg 1948). This physiographic area is characterized by glacial modification and subsequent erosion.

The soils in the vicinity of Project Area A consist mainly of alluvium and clayey glacial till. The project area's proximity to Crow Creek, a deeply entrenched Wisconsinan drainage, has resulted in a moderate number of erosional gullies through the area. The elevation within the proposed borrow area ranges from 650 feet to 700 feet above sea level, with slight to moderate slopes. A thorough discussion of the physiographic formation of this area can be found in Abbott and McKay (1978:5-24).

The topography of Project Area B, along the Mississippi riverfront, has been extensively altered through urban development and intensive grading and filling activities (U.S. Army Corps of Engineers 1965:12). Coring logs provided by the Corps of Engineers and actual shovel testing indicate that the entire length of levee right-of-way between the temporary levee and the D, RI, and NW railroad

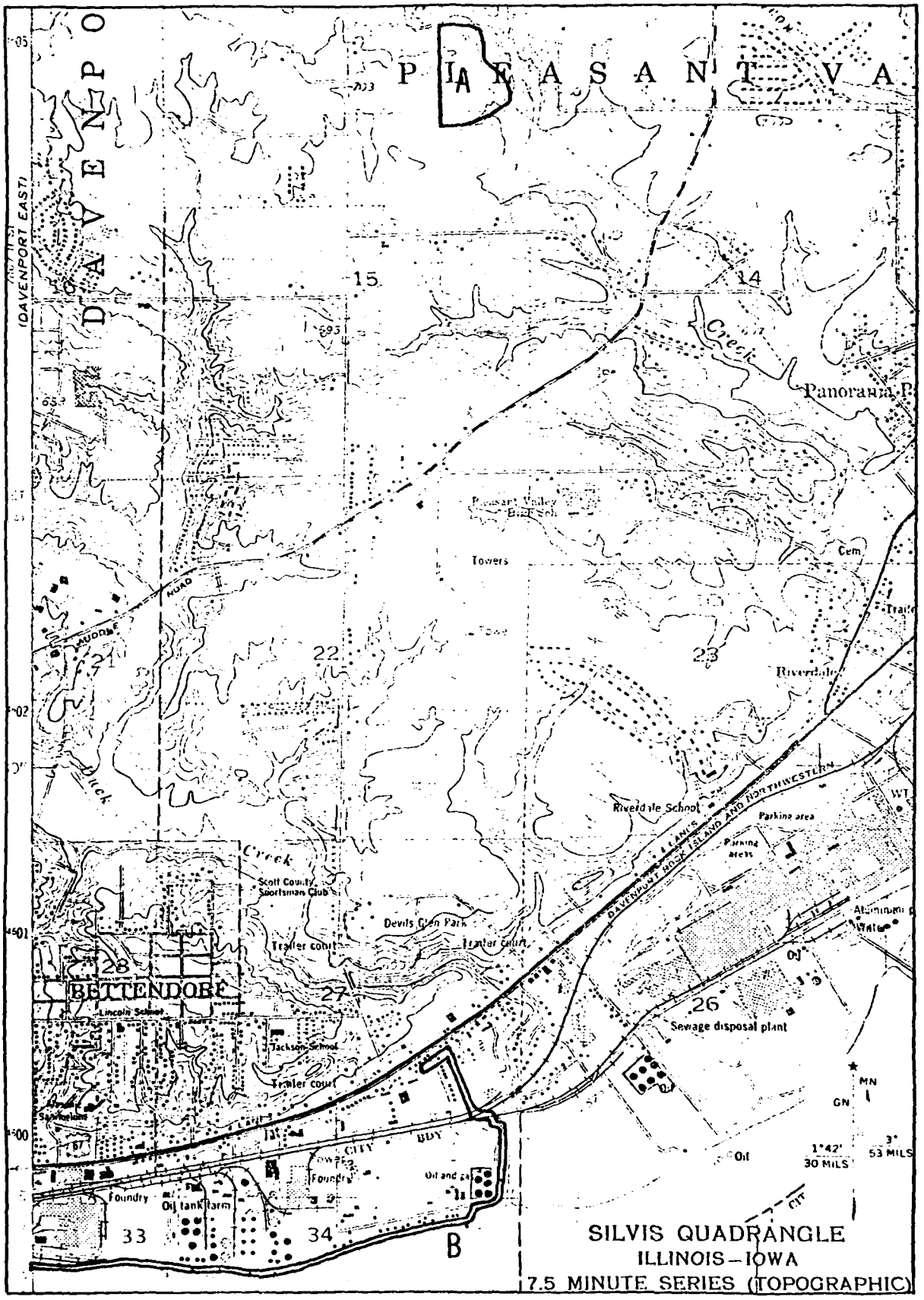

Figure 1. USGS Quad Map Showing Locations of Project Areas A and B.

tracks has been subjected to flooding and/or industrial fill deposits to depths of over 20 feet. Between the railroad tracks and State Street, extensive grading activities have resulted in the stripping of all possible culture-bearing levels, except for recent refuse. Elevations in Project Area B range from 560 feet to around 575 feet above sea level.

Project Area A is located adjacent to a bedrock exposure caused by severe entrenchment within the Crow Creek basin during the Wisconsinan glacial stage. The bedrock is made up of several series of Middle Devonian limestones, some of which carry lenticular nodules of flint (Abbott and McKay 1978:5). The few artifacts found in the area, however, indicate that the source for raw materials was most likely the various exposures of "Moline Chert" in the Rock River drainage. This type of chert is generally fine-grained and ranges in color from a light gray through blue-gray to blue-black. This range in variation of color has generally been considered to occur naturally, although it has also been hypothesized that the darker colors are the result of heat treatment in an oxygen-reducing atmosphere (R. Eichhorn, May 5, 1980; personal communication). Artifacts and debitage of "Moline Chert" have been found throughout northwestern Illinois and eastern Iowa in archaeological contexts ranging from the Early Archaic through the Late Woodland/Upper Mississippian (Birmingham 1976:15).

BIOTIC RESOURCES

While extensive alteration due to agricultural exploitation and quarrying activities at Project Area A and urban development around Project Area B has undoubtedly occurred, it can be assumed that a range of biotic communities once existed within the general project area. Project Area A is currently under cultivation; however, studies of historic plant communities, landform analysis, and soils data indicate that the proposed borrow area was originally covered with a mixture of oak savanna, oak forest, and some maple forest (Abbott and McKay 1978:26). Dominant species included a variety of oaks (Quercus sp.), wild cherry (Prunus serotina), aspens (Populus sp.), shagback hickory (Carya ovata), black walnut (Juglans niger), and various types of grasses.

The vegetation of the Mississippi River floodplain, prior to urban development, was probably a mixture of aquatic marsh habitats and higher grass-covered ridges and terraces. It was undoubtedly subject to periodic flooding, and the development of numerous sloughs and backwaters in the area suggests that swamp vegetation would have been very common.

The faunal resource base in both locations was most likely varied and fairly stable during prehistoric times. Of especial interest is the fact that the entire project area lies under a major fly-way for migrating waterfowl. While in the field, several varieties of waterfowl were observed, including wood ducks (Aix sponsa), mallard (Anas platyrhynchos), and coot (Fulica americana). The Mississippi River

and the mouth of the Rock River were both excellent sources for freshwater mussels, as indicated by the number of shell heaps having been noted in the vicinity (Van Dyke and Overstreet 1979:28). Duck Creek, Crow Creek, and the Mississippi River would have all supplied numerous aquatic resources, and common upland mammals available for subsistence would have included deer (Odocoileus virginianus), raccoon (Proscyon lotor), squirrel (Sciurus sp.), and rabbit (Sylvilagus floridanus).

CLIMATE

Characteristically, the climate in eastern Iowa is midcontinental. The winters are cold and dry, and the summers are hot and humid. The annual average precipitation is 35 inches, with the greatest amount falling in spring and early summer. The mean annual temperature is 50°F, with an average range of 34°F in the winter to 74°F during the summer (Weichman 1975:8). The growing season lasts approximately 173 days (Van Dyke and Overstreet 1979:11).

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS AND EXISTING INFORMATION ON CULTURAL RESOURCES IN THE VICINITY OF THE PROJECT AREA

The archaeological resources of the Bettendorf area have been investigated only sporadically during the past century. Certain portions of the areal prehistory have been more intensively studied than others, reflecting contemporary research considerations or personal interests. Also, urban development and modern farming techniques have contributed to the decreasing number of interpretable sites located within the area. As a result, a complete prehistoric chronology is not currently available for this region. Those portions of the prehistoric record that have received a considerable amount of attention have been included within two major topics: an early emphasis upon the "Mound Builder" culture and, more recently, investigations into the spatial distribution of sites in the area as they relate to environmental factors.

ARCHAEOLOGICAL INVESTIGATIONS PRIOR TO 1970

During the latter half of the nineteenth century, considerable interest, both scholarly and otherwise, was focused upon the enigmatic earthen mounds found throughout much of the eastern half of the United States. At the time, the commonly held view was that the mounds were built by a vanished race, separate from and superior to the American Indians (McKusick 1970; Mallam 1976:145). This theory seems to have been used as a means of justifying the nineteenth century white American treatment of the Indians.

Within the Bettendorf and Quad Cities areas, a group of individuals interested in pursuing the scientific questions of the day organized the Davenport Academy of Natural Sciences in 1875. While this organization ostensibly met regularly to discuss a variety of scientific topics, heavy emphasis was placed upon the exploration, description, and explanation of the numerous prehistoric mounds located in the Quad Cities area. The results of these investigations, including maps and drawings of the mounds, placement of the burials, and descriptions of the artifacts, were published within the Academy's Proceedings. Some of the artifacts collected during these excavations were curated with the Academy (now a part of the Putnam Museum, Davenport, Iowa), while others were placed in private collections.

While the Academy's excavations could not be considered professional by contemporary standards, they represent the nineteenth century norm for archaeological investigations and have provided fairly detailed, if not theoretically based, descriptions of the mounds and their occupants (see Farquharson 1876; Lindley 1876; Tiffany 1876 a & b; Churchill 1878; Gass 1878 a & b; Gass and Farquharson 1878; Pratt 1878a; Gass 1881; Lindley and Pratt 1881; Harrison and Pratt 1889; Lynch et al. 1889; Starr 1895; and Farquharson 1908). It is

unfortunate that, at the time, so little attention was paid to the living beings who constructed the mounds. Virtually nothing is known of the associated villages and, now that modern development has destroyed not only many of the remaining mounds, but also their surroundings, the lifestyles of the "Mound Builders" in the Quad Cities area will probably never be understood as well as in places where these village sites still remain intact.

The archaeological investigations conducted by the Davenport Academy lasted little over 20 years. During at least half of that time, the Academy was not involved in active investigations because it was too busy defending itself against charges of incompetency, fraud, and worse. This resulted from an infamous deception played on or by the Academy, depending upon one's viewpoint. In short, the hoax was concerned with a number of "suspect" artifacts and, at its height, involved everyone from the Davenport Academy to the Smithsonian Institution. A thorough and interesting treatise of the "Davenport Conspiracy" has been written by McKusick (1970).

Another topic of interest to various members of the Academy during the last quarter of the nineteenth century was the interpretation of the numerous shell heaps located along the banks of the Mississippi River and its tributaries. Various explanations were provided for the occurrence of these shell heaps, ranging from their development by river action and/or ice floe deposition to being the result of cultural refuse patterns (Pratt 1878b; Toellner 1879; Van Dyke and Overstreet 1979). This topic, however, was never accorded the amount of attention that the "Mound Builder" question received.

ARCHAEOLOGICAL INVESTIGATIONS FROM 1970 TO 1980

Although archaeological research continued on the Illinois side of the Quad Cities area during the period from 1900 to 1970, no systematic investigation was conducted in the Davenport-Bettendorf area until 1974. During that year, the Environmental Research Company of Iowa City, Iowa, under a subcontract to the Midwest Research Institute, conducted "an assessment and inventory of the archaeological resources located within and adjacent to the proposed Davenport Levee Project" (Weichman and Stack 1974:1). The report of findings for this project included an overview of the Davenport Academy's investigations, especially those dealing with the Cook's Farm Mound Group, which was, prior to its destruction, located near the levee project boundaries. This mound group, while at the heart of the Davenport scandal, had also revealed quite a bit of information on Hopewellian mortuary practices (Weichman and Stack 1974:6-8).

The Weichman and Stack report also included a brief history of the Davenport vicinity (1974:9-16). Their discussion, however, was centered almost totally upon the historic Indian occupation of the Quad Cities area and the various conflicts between the white and Native Americans.

Upon completion of the background research, a survey was conducted within three portions of the project area: portions of the Mississippi floodplain, Credit Island, and a ridge line of the bluffs bordering the northern portion of the Mississippi floodplain. Surface inspection of the three areas revealed no indications of cultural resources, even though Middle Woodland mounds had been reported in or near two of the three project areas (Weichman and Stack 1974:18-21).

Due to the fact that the Weichman and Stack study consisted entirely of a background literature search and a pedestrian surface inspection of the project area, it was determined that a more intensive survey was required before the levee project could be completed. A portion of the justification for this additional work came from a January 6, 1975, letter to the Rock Island District, Corps of Engineers, from Mr. Ferrel Anderson, then president of the Quad Cities Archaeological Society. This letter discussed the collections made by several avocational archaeologists within or near the limits of the project area and recommended that subsurface testing take place within the project area before levee construction was begun.

As a result, in April 1976, the Great Lakes Archaeological Research Center, Waukesha, Wisconsin, initiated an intensive survey of the Davenport levee project area. Techniques employed during the survey included both soil analysis and shovel testing. In addition, an intensive testing program was to be undertaken at three locales within the project area, based upon previous investigations and ethnohistorical research. The three locations for testing included the Cook's Farm Mound Group's "habitation site," an area on Credit Island where prehistoric artifacts had been previously collected, and the Credit Island "shell midden." In spite of numerous ethnohistoric references to the use of these areas aboriginally and although artifacts had earlier been collected from certain portions of the project area, the intensive survey failed to uncover any evidence of prehistoric and/or historic aboriginal cultural activity (Overstreet 1976:14).

The most recent cultural resources investigation to take place in the Davenport-Bettendorf vicinity was conducted by the Iowa Office of the State Archaeologist during the spring of 1978. This study, contracted to the State Archaeologist's Office by the Rock Island District, Corps of Engineers, consisted of a background literature search for both prehistoric and historic resources and a field inspection of the Crow Creek drainage. The purpose of the study was to identify those areas within the Crow Creek drainage where the potential for the occurrence of cultural resources was high. This information, in turn, would be used in planning the future development and flood control management of the Crow Creek basin so that adverse impacts to significant cultural resources could be minimized (Abbott and McKay 1978:2).

Much of the report on the archaeological resources of the Crow Creek basin was concerned with developing a predictive model for site location based upon environmental factors. Abbott assumed that "the probability of occurrence of an occupation/utilization on a given

landform becomes a function of the stability of the diversity of the local natural environment" (Abbott and McKay 1978:40). The methodology employed to support this assumption consisted of a 6% field coverage, a comparison of located sites with their local habitats, and an analysis of the amount and kinds of habitats required to support single and/or multiple occupation sites.

One site in the Crow Creek basin had previously been recorded. Fifty-four others were located and recorded during the field survey. There was generally a light amount of cultural material recovered from each site. In fact, 45 of the 54 newly identified sites produced five or fewer artifacts. Three reasons were provided for the low density of artifactual material recovered from the survey:

1) the sites represented light, possibly single occupations,

2) amateur collectors have removed some material, especially diagnostic and undiagnostic lithic artifacts, and

3) light, surficial erosion on some cultivated areas has obscured or destroyed portions of sites (1978:53).

Abbott stated that although very few diagnostic artifacts were recovered from sites in the lower and middle portions of the basin, the projectile point range from private collections of this area indicates that the basin has supported continuous human occupation since the Paleo-Indian period (1978:53).

A site distribution analysis was performed on 35 of the 55 sites. It was determined that the sites and some of their cultural material tended to parallel the distribution of certain mineralogical resources, such as surface water and raw lithic materials. It was also discovered that the distribution of larger artifacts (i.e., manos, hammerstones, manuports, cores, and anvilstones) correponds to that of the major glacial till exposures and/or with the geologically active lower portion of the basin. Finally, it was ascertained that 80% of the sites had two to three different plant communities within 50 m of the site center and 100% had only two to four different communities located within 200 m of site center (1978:54-58).

From the above observations, it was deduced that all but one site, which had produced over 40 artifacts, seemed to represent short-term occupation sites and/or limited resource utilization sites. Abbott stated that the generally low level of environmental diversity and the types of resources present within the basin indicates that continued occupation could not be supported at the sites, although reoccupation could occur as long as environmental diversity was maintained within the drainage (1978:62-63).

Abbott concluded that although each small site appeared to be insignificant in and of itself, the sites as a group could be used to understand the settlement and subsistence patterns of the prehistoric occupants within the Crow Creek drainage basin. He suggested that the sites in the lower part of the basin that produced manos were also in close proximity to oak forests and may have served as seed processing areas. On the other hand, he postulated that the presence of waste flakes and/or chipped stone tools may have indicated a secondary or temporally different use of the sites for hunting and meat processing activities (1978:67-68).

In addition to surveying the Crow Creek drainage basin for evidence of aboriginal occupation, an historical overview and windshield survey of the historical and architectural resources within the project area was also undertaken by the staff of the Iowa State Archaeologist's Office. The survey procedure, because of time restrictions, was limited to a windshield survey of all sites and structures located on maps prior to the 1920's. A further bias was introduced in the fact that no maps dating earlier than 1868 exist for the Crow Creek area. Thus, the earliest stages of settlement may be underrepresented in the survey results.

The survey of historical resources, however, located a number of former house locations within the project area, especially within the lower two-thirds of the basin. They were identified by the presence of depressions and clusters of trees. An area north of Interstate 80, east of Mt. Joy, and south of Eldridge, was judged to have the greatest potential for preservation of significant structures. This area's architectural importance was determined on the basis that it is the least heavily developed region within the Crow Creek basin and because much of the architecture consists of I-house types, an architectural type that dates from 1830 to 1870 (Abbott and McKay 1978:1). Although the historic structures survey did not include barns and outbuildings, over 370 structures or historic sites were located. Of these, 320 were positively dated to earlier than 1930.

REPORTED SITE DISTRIBUTION IN AND NEAR THE PROJECT AREA

No sites have been recorded within or near the proposed levee right-of-way to date. Mr. Ferrel Anderson (5 March 1980; personal communication) reported that he had seen a reference to a Hopewellian mound group at the mouth of Duck Creek, but this claim remains unverified. If the mound group did indeed exist near the project location, there is a chance that a village site is also located within the vicinity, although the amount of urban development in the area may have destroyed any remaining cultural materials.

The Crow Creek prehistoric site survey located three sites within 1 km and 15 sites within 2 km of the center of the proposed borrow area. The project area itself was apparently not surveyed during the previous investigations.

Of the 15 sites located within 2 km of the proposed borrow area, two were recommended for further testing. One site was identified as a campsite of indeterminate origin located upon the shoulder and backslope of a beveled scarp. It is located within 50 m of both Woodfordian and Holocene landforms and alluvium, perennial water, maple/bottomland forests, and bottomland prairie. Collected artifacts include a core, a mano, and an abrader (Abbott and McKay 1978:152, 159; IOSA Site Files, Scott County, Iowa).

The second site, on the other hand, was identified as a Late Woodland village located upon a loess-mantled natural levee. Artifacts from this site include a small Late Woodland rim sherd, a biface fragment, a possible mano fragment, core fragments, fire cracked rock, and flakes. This site is also located within 50 m of Woodfordian and Holocene landforms and alluvium, both perennial and intermittent water, maple forest, and bottomland mixed prairie-forest (Abbott and McKay 1978:153, 159; IOSA Site Files, Scott County, Iowa).

Of the remaining 13 sites located near the project area, five, including the three situated within 1 km of the proposed borrow area, were not analyzed in terms of their relationships to surrounding landforms and environmental factors. It was interesting to note, however, that the other eight sites, each of which is classified as a small upland campsite, are all located on either Illinoian, Wisconsinan, or Sangamonian landforms. In addition, only one of these sites is situated within 50 km of a water source, and that only an intermittent source. One of the upland sites was identified as either Archaic or Woodland on the basis of a side-notched projectile point fragment recovered during the survey. The remainder were all classified as being of indeterminate origin (Abbott and McKay 1978:153-154, 159-160).

HISTORICAL RESOURCES IN AND NEAR THE PROJECT AREA

The National Register of Historic Places lists no properties in or near the proposed levee right-of-way or the proposed borrow location. An NRHP nomination is pending, however, for the Brown-Nutting Estate ("Riverview"), located on State Street about .5 km northeast of the Duck Creek bridge. The complex includes a stone house, built in 1843-1844 and with an attached summer kitchen/blacksmith shop, an ice house, and a barn/carriage house. The property was purchased by Christopher Rowe from the Federal government in 1840. It was owned by Amasa Doolittle when the house was built, but was leased to James Brown in 1844. Brown became owner of the house and the surrounding property in 1854. It was later owned by a Colonel Nutting, a prominent Davenport businessman and a friend of Buffalo Bill Cody. The house is deemed significant architecturally because of its uncommon stone construction and its probable position as the first house west of the Mississippi River to have a central heating system (Iowa SHPO files, Scott County, Iowa).

The historical survey conducted by the Iowa Office of the State Archaeologist located a number of potentially significant historic

sites and structures in the vicinity of the proposed project areas. Although the locations of the structures were observed and/or verified by the windshield survey, the historic sites, most of which were initially identified on maps of the area, were not ground-truthed for a determination of their extent and integrity of remains. Presently, it can only be stated that there is a potential for the presence of these sites; their actual locations and cultural integrity, for the most part, remain undetermined.

Two structures of possible historical and/or architectural significance were observed east of Duck Creek in Section 26. These were the Moss Estate, built around 1858, and the Telfaire Estate, constructed prior to 1868. A cement factory, built during the 1920's and also located within Section 26, was replaced by Alcoa in the 1950's. In addition, one of the sites for the Scott County fair may also have been disturbed and/or destroyed by construction of the Alcoa plant (Abbott and McKay 1978:180). This site may be identical to the one described by Dorothy Lage (Lage and Voelliger 1973:15) for the second Scott County fair, held in 1854. The fair was held on a tract of eight acres near Duck Creek. The land was acquired by the Fair Grounds Association of Scott County, Iowa, for $200 an acre. The site was apparently used as a fairgrounds from 1855 until 1862 or 1863. Structures on the site included sheds, workshops, and a 7 ft-high board fence enclosing an area of four acres. Local residents have claimed that ridges in the ground near the vicinity of the fairgrounds site represent remnants of the old racetrack. An extant farmhouse in the area was supposed to have been used as an hotel or rooming house for visitors to the fair.

In Section 27 was located one of the earliest Euro-American sites in Scott County. This was the site of Captain Benjamin Clark's sawmill on Duck Creek, built in 1835 and destroyed before 1868 (Abbott and McKay 1978:180). Unfortunately, a housing development has apparently destroyed most of the millsite and its associated community (Abbott and McKay 1978:106). It is not known if any remains of these sites still exist in and around the development.

Four possibly significant structures were located by the IOSA historical survey in Section 15 adjacent to the proposed borrow area. One of these, a house first owned or built by F. Blacke around 1857, is currently standing abandoned. Two were built between 1882 and 1894, and one, an I-house type, was not recorded until 1940, although it may have been built prior to that date. Several other early house sites in Section 15 have been replaced by later structures. The extent to which these sites were disturbed during the later construction is not known. Two farmhouses that were built before 1868 were still standing Section 10 at the time of the Abbott and McKay survey. Five others, however, were noted as no longer in existence.

Probably the most significant historic site in Section 10 is the abandoned gravel and limestone quarry located adjacent to the proposed borrow area. The initial use of the quarry apparently occurred prior to 1868 and it continued in production until 1894 or 1895 (Parker 1942:68-69;

Lage and Voelliger 1973:13). The quarry was re-opened during the 1950's and 1960's. It now functions as a portion of the Crow Creek Recreation Park (Abbott and McKay 1978:98). Another quarry was located near the proposed levee right-of-way between the north side of State Street and Duck Creek. It is not known when this quarry was opened, but it is marked on the 1882 Schmidt and Huebinger atlas (Figure 2). According to subsequent maps of the area, the quarry was apparently abandoned by 1894. This quarry has since been filled in, thereby lending additional historic significance to the existing quarry at Crow Creek Recreation Park as being the earliest documented example of a means of livelihood that was instrumental in the early settlement and economic development of the project area. A further discussion of the significance of this quarry and recommendations for the mitigation of adverse impacts to it are presented in the Recommendations and Conclusions section of this report (p. 29).

Figure 2. 1882 Schmidt and Huebinger Atlas Plat Map Showing Location of Quarry Near Project Area B.

AN OVERVIEW OF THE PREHISTORIC AND HISTORIC OCCUPATION IN THE PROJECT AREA

THE PREHISTORIC PERIOD

A detailed prehistoric chronology for the Bettendorf vicinity is not currently available because of the relative lack of controlled archaeological information from the area. As discussed in greater detail in the last chapter, the archaeological investigations of the Quad Cities area have generally been centered upon specific research topics, resulting in the understanding of certain temporal periods and/or cultural manifestations to the virtual exclusion of the remainder of the prehistoric record.

The emphasis within this review, especially for the prehistoric era, will be placed on specific documentation for human occupation in and near the project area. There are several general summaries of the regional prehistory that are readily available (Bennett 1952; McKusick 1964; Logan 1976). These published works can provide the background perspective against which can be judged the relative completeness of information on the prehistoric occupation of the project area. The following prehistoric overview will stress, therefore, both those periods for which archaeological data is available from the local project area as well as those periods for which little is known and upon which future emphasis should be placed.

PALEO-INDIAN PERIOD

The Paleo-Indian period in the Quad Cities area is known solely from the appearance of diagnostic Paleo-Indian artifacts within the collections of local amateur archaeologists. The fact that these artifacts, most of which are fluted projectile point types, have been recovered from the Quad Cities area indicates that the region was subject to human exploitation during the Paleo-Indian period. The extent and actual dynamics of this exploitation, however, remain largely unknown.

For the purposes of this discussion, it can be assumed that human occupation in the project area probably did not occur until after 15,000 BC. It was at this time that the recession of the Woodfordian glacial advance had progressed sufficiently to allow for the support of a stable large mammal population. Of course, the explanation for this date is based upon the traditional assumption that the major form of subsistence procurement during the Paleo-Indian period was the intensive hunting of large game animals. Much of this assumption has been founded on the distinctive hunting-oriented tool kit generally associated with the Paleo-Indian period. Recent information (Shafer 1977) from other areas of the country, however, is proving that a wider range of resources was being exploited during the Paleo-Indian period than had previously been thought. Thus, it may soon become necessary to revise current ideas about the dates and types of Paleo-Indian occupation that occurred in glaciated areas of the continent.

Relatively few Paleo-Indian campsites have been located and excavated in eastern North America. Much of our current information on Paleo-Indian site distribution and density has been extrapolated from the mapping of surface scatters and isolated finds. From this information, it has been observed that Paleo-Indian occupation generally occurs on terraces and bluffs overlooking major watering areas. Usually, these areas are located along major drainages, although several Paleo-Indian sites have been found near minor drainages or in interriverine areas. Based upon these generalizations and upon discussion with local collectors in the Bettendorf area, it can be predicted that the Paleo-Indian sites may be present along constricted portions of the Crow Creek and Duck Creek drainages and on the terraces bordering the lower portions of these two streams. Attention should be focused on these areas during any future archaeological survey activities in the area to perhaps shed further light on the Paleo-Indian occupation of the Bettendorf area.

TRANSITIONAL PERIOD

A few bifacial artifacts, mostly of the Dalton-Meserve point varieties and generally attributed to the transitional period between the classic Paleo-Indian and the Archaic period (ca. 9000 to 7000 BC), have been found in the vicinity of the project area. Again, these implements have been found solely through surface collections; there are not known or documented transitional period occupation sites in or near the project area.

While the increased variety of tool types appearing in Transitional period sites elsewhere in the country has been used to hypothesize a gradual shift to a more generalized adaptation, it should be expected that Transitional period site distribution is probably very similar to that of the Paleo-Indian period. This expectation is supported by evidence from a number of stratified rockshelter sites throughout the middle part of the continent (Logan 1952; Fowler 1959; Wood and McMillan 1976). Thus, future archaeological survey activities in the Bettendorf area that have as one of their goals the discovery of possible Paleo-Indian occupation sites should also explore the possibilities of locating Transitional period sites in the same general areas.

ARCHAIC PERIOD

The Archaic period in the eastern half of the North American continent is generally considered to have lasted from around 7000 to 2500 BC. The accepted view of the Archaic is that it was a period of changing adaptation--first, from a restricted large-animal hunting base to a more generalized hunting and gathering subsistence pattern, and later, from the random exploitation of all available resources to the scheduled procurement of several defined seasonal resources (Cleland 1976). The shift in subsistence adaptations was accompanied by the introduction of a wide variety of food-processing implements (e.g., manos, nutting stones, ground stone tools, etc.). Many archaeologists have viewed the initial shift from a hunting adaptation to the exploitation of a larger range of resources as being

at least partially induced by a change in climatic conditions resulting in the establishment of a wider range of resources (Griffin 1960; Baerreis and Bryson 1965). However, other evidence has shown that the subsistence base did not change very much, except in the introduction of some new species. Instead, it appears that the Early to Middle Archaic tool kit was expanded to more effectively use the resources already available to a limited degree during earlier periods (Fowler 1959; Wood and McMillan 1976).

Viewed archaeologically, not only did the tool kit used for resource procurement change during the Archaic period, but, as social roles became more specialized and intergroup relationships evolved into more complex forms, new and totally different artifact types became much more common in Archaic contexts. These artifact types include some exotic materials that had been traded over long transportation networks, the first mortuary goods found in recognizable burial contexts, and a few artifact types apparently used for purely ceremonial reasons. Late Archaic sites are characterized by a pronounced division of labor and the spatial isolation of activities, not only within sites but between them as well. Discrete activity areas and the use of a number of different sites for specialized purposes has been documented archaeologically throughout the eastern portion of the North American continent (Winters 1969).

In the vicinity of the project area, at least one site has been identified as being either of Archaic or Woodland origins, based upon the presence of a side-notched projectile point fragment in the 1978 survey collection. It appears, moreover, that several, and possibly many, of the other campsites discovered during the Abbott and McKay survey may also be of Archaic origins. Many of the campsites, especially in the lower third of the Crow Creek basin, revealed evidence for the occurrence of specialized animal and/or plant processing activities, a characteristic trait of the Archaic period.

Thus, it appears that the Bettendorf vicinity was probably occupied during the latter half of the Archaic period. The resources in the area would certainly have been such that sporadic, but repeated, occupation could have occurred throughout the Archaic period. It seems certain that the area could have at least supported a subsistence pattern devoted to the specialized exploitation of a few selected resources, such as was the case during the Late Archaic.

WOODLAND PERIOD

The Woodland period in eastern North America has generally been differentiated from the Archaic by the inclusion of ceramics in regional artifact inventories. At least during the Early Woodland period, the introduction of pottery into the cultural assemblage was basically the only difference between that and the Late Archaic period (Dragoo 1976). Ceramic-bearing sites have been dated to as early as 2500 BC in certain parts of eastern North America, although ceramics were probably not introduced into the cultural inventory of the project environs until sometime later.

The albeit limited investigations in the Quad Cities area have demonstrated that the earliest ceramic type in the area was that representative of the Black Sand phase (Van Dyke and Overstreet 1979: 43). This type has been subjected to a very detailed description by Fowler (1959:96). No Early Woodland sherds or lithic artifacts have been reported from the vicinity of the two project areas, however.

As the Woodland period progressed in eastern North America, a sophisticated and complex cultural manifestation developed and, ultimately, reached its peak as the Hopewell Tradition. This tradition, which was at its height during the Middle Woodland period (ca. 500 BC to AD 500), has been characterized by the construction of conical and linear earthen burial mounds, the development of complex trade networks involving a number of exotic materials (e.g., marine shell, mica, obsidian, etc.), the evolution of a pan-regional ceremonial cult, an increased reliance upon horticulture, and a semi-sedentary lifestyle. These traits were, of course, locally modified within smaller regional boundaries, but their appearance throughout the Ohio and Upper Mississippi River valleys indicates that this was a period of strong cultural florescence.

Evidence from the Quad Cities area for its settlement during the Middle Woodland period has come almost totally from the historical accounts of the Davenport Academy's excavations of mounds in the area. The descriptions of the mound contents were often not detailed enough, however, to assign a precise temporal or cultural designation. The University of Wisconsin-Milwaukee surveys during the mid-1970's demonstrated that Middle Woodland sites were usually located within the bottoms and terraces of the main valleys, in secondary valleys, and on bluff tips. Very little diagnostic ceramic material was recovered, but the material that was found indicates that these were probably Late Middle Woodland sites related to the Steuben and/or Weaver phases (Birmingham 1976:22). Many of the Middle Woodland sites that have been recorded in the Quad Cities area are now, due to their locations, destroyed through the forces of urban development.

From AD 500 on, the Woodland period was characterized by the decline of Hopewell-related ceremonialism, a fragmentation of the large Middle Woodland settlement centers into smaller, isolated villages and camps, and the exploitation of a variety of resources. One of the sites identified during the Crow Creek survey was apparently a Late Woodland village site, based upon the presence of a temporally diagnostic rim sherd from that period. Generally, however, the Late Woodland period remains vastly underrepresented in the Quad Cities regional inventory.

MISSISSIPPIAN PERIOD

Elsewhere in eastern North America, the period from AD 1100 to AD 1400 was characterized by another, even more sophisticated, cultural florescence that the Hopewell Tradition. Diagnostic traits of the classic Mississippian included sedentary settlement

within large, fortified urban centers, the construction of truncated earthen temple mounds around a central plaza, an elaborate ceremonial complex, and a heavy dependence upon maize agriculture. The classic Mississippian cultures, however, were not as widespread spatially as was the earlier Hopewell tradition. In many areas of the eastern United States, including the Upper Mississippi Valley, a cultural complex that retained many of the earlier Late Woodland characteristics apparently continued, without much change, to the Protohistoric and Contact period. Within the Quad Cities area, virtually nothing is known of the Mississippian period. A few diagnostic Mississippian artifacts (i.e., small triangular projectile points and shell-tempered pottery) have apparently been found in the area, and one seeming Mississippian site was reported to have been destroyed during the past fifteen years(Van Dyke and Overstreet 1979: 49). Other than this, the prehistory of the Quad Cities area from the Late Woodland to historic contact remains a virtual unknown.

THE HISTORIC PERIOD

A number of readily available regional and local histories have been written for the Bettendorf area (Barrow 1861; Interstate Publishing Company 1882; Downer 1910; Burrows 1942; Parker 1942; Lage and Voelliger 1973). Therefore, this historical overview has been written to provide a concise regional perspective against which can be viewed the results of this survey, its predecessors, and future archaeological investigations in the area.

PROTOHISTORIC AND HISTORIC ABORIGINAL OCCUPATION

The protohistoric and early historic occupation of the Davenport-Bettendorf vicinity has remained shrouded in mystery to researchers of the area's history. Early explorers along the Mississippi River, such as Marquette in 1673 and Le Seuer in 1700, reported seeing no evidence of aboriginal occupation in the area. It may be that this area was being used as a buffer zone between the Illinois and the Sioux as a result of a conflict due to trade rivalries. This practice has been documented to have occurred elsewhere in the western Great Lakes region (Hickerson 1962).

It was not until the mid-1700's that the first historical references were made to Indian tribes possibly living in the Quad Cities area. The tribe being discussed was the Sauk, who apparently migrated into the area from the Fox River in Wisconsin. The earliest historical references were two from 1741-42 stating that the Sauk were living on the Rock River, and one in 1752 stating that the "chief of the Sauk of Rock River and some chief men renewed alliance with the Peoria Illinois" (Horr 1974:53). It is not known, however, whether the Sauk and their allies, the Fox, had moved as far south as the mouth of the Rock River by this time.

In his autobiography, Black Hawk (1832) reported that he was born in the large Sauk village, known as Saukenauk, at the mouth of the Rock River in 1767. He did not state when the village was founded. An early historian of the Scott County area reported that

the village was founded around 1730 (Downer 1910(1):48), although more recent scholars have dated its origins to around 1764, just a short time before Black Hawk's birth (Temple 1958:94; Wallace 1970:13).

The village of Saukenauk was apparently moved a number of times during its roughly 75-year history, but always within several miles and on the north side of the confluence of the Rock and the Mississippi Rivers. Associated with the village were also a number of smaller Sauk and Fox villages on the south side of the Rock River and a reputed eighteenth century Fox village on the western side of the Mississippi River (Weichman and Stack 1974:13). While there is very little contemporary evidence for the earlier village on the western shore, it has been fairly well documented that a group of Fox Indians from the Dubuque area moved into the Davenport vicinity in 1828 (Barrow 1861:36; Fulton 1882:139-140).

Various population estimates have been given for the Sauk and Fox occupation of the Quad Cities area during the early historic period. In 1762, Lieutenant James Correll, commandant of the British garrison at Green Bay, Wisconsin, reported that the Sauk and the Fox on the Rock River could each boast of 350 warriors (Horr 1974:72). In June of 1780, American troops apparently destroyed a large Sauk village, which may, indeed, have been Saukenauk, that was located three miles upriver from the mouth of the Rock River and had a population that included 700 warriors (Horr 1974:90). By 1804, both the Lewis and Clark expedition and Major Amos Stoddard, the first American civil governor of Upper Louisiana, reported a large population (ca. 3200 persons) of both Sauk and Fox living in the Quad Cities area, of which the majority were living on the west side of the Mississippi River (Horr 1974:118-119). In 1813, a large group of Sauk left the Quad Cities area to join a pro-American Fox village in the Des Moines area. This left an aboriginal population in the area of about 410-530 persons. However, the pro-American faction returned to the Rock River in 1817 at the close of British and American hostilities, thereby increasing the population level to again around 3000 persons (Horr 1974: 169-172). Major Stephen H. Long, a topographic engineer for the U.S. Army, visited the revitalized Sauk village in 1817 and described it in the following manner:

> "On Rock River, 2 miles above its mouth, and 3 across the point from Fort Armstrong, is a Sack [sic] village, consisting of about one hundred cabins of 2, 3, and in some instances 4 fires each. It is by far the largest Indian village situated in the neighborhood of the Mississippi between St. Louis and the Falls of St. Anthony. The whole number of Indians at this village amounts probably to between two and three thousand. They can furnish eight or 900 warriors, all of them armed with rifles or fuses" (Long 1860-67:69).

By the 1830's, however, most of the Sauk and the Fox had moved further west and out of the Quad Cities area.

EARLY EXPLORATION AND SETTLEMENT

Except for exploratory passes through the Quad Cities area by persons such as Marquette and Le Seuer, the first Europeans to intensively explore the area did not arrive until 1760-61. During that winter, a group of 132 men from Fort Michilimackinac and under the command of Monsieur Beaujeu, "Captain of Canada," were forced to winter with a group of Sauks and Foxes on the the Rock River a few miles upriver from its mouth (Horr 1974:65). Other early travellers in the area included Francisco Cruzat, Lieutenant-Governor of Spanish "Illinois Country," in 1777; Thomas Hutchins, a British Army Engineer, in 1778; Charles Gautier de Verville, a British agent, in 1779; and two British traders, Richard McCarty, in 1779, and Robert Dickson, in 1793 (Horr 1974:83-92). During the years of 1804-1805, two major westward expeditions passed through the Quad Cities area: the Lewis and Clark Expedition and that led by Lieutenant Zebulon Pike (Horr 1974:118, 130).

Three trading posts were established in the Quad Cities area during the late eighteenth and early nineteenth centuries. French posts were built at the mouth of the Wapsipinicon River and on Credit Island (Abbott and McKay 1978:83), and an American Fur Company post was founded on Smith's Island above Pleasant Valley (Lage and Voelliger 1973:2). In 1816, the American military post, Fort Armstrong, was built on Rock Island (Huebinger 1894). This was the forerunner of the still-functioning Rock Island Arsenal.

Despite the amount of military and trading activity that took place in the Quad Cities area during the first quarter of the nineteenth century, it was not until 1833 that initial settlement occurred in the Bettendorf area. In that year, Roswell Spencer built a cabin overlooking the Mississippi River near Pleasant Valley. The first house that Spencer built in this location, which is northeast of the Bettendorf project area, was apparently constructed of logs rafted down the Mississippi River from Wisconsin. This house was used for the first religious services in the area by a circuit-riding preacher. In the 1840's, Spencer built a frame, 2-1/2 story house near his original house site. This structure is currently pending nomination to the National Register of Historic Places (Iowa SHPO files, Iowa City).

CONFLICT AND RESOLUTION

As in many areas of the North American continent during the late eighteenth and early nineteenth centuries, the settlement and ultimate development of political control over the Quad Cities area was not accomplished without the use of military action. As mentioned earlier, a large Sauk village located three miles upriver from the mouth of the Rock River was reported to have been destroyed by American troops in 1780. On November 3, 1804, William H. Harrison, then Governor of the Indiana Territory, negotiated a

treaty with a certain group of Sauk and Fox Indians (7 Stat. 84) to cede a large tract of land in the present states of Wisconsin, Illinois, and Missouri. Article 3 of the cession provided for an annuity of goods to each tribe and Article 7 stated that as long as the lands remained the property of the United States government, the Sauk and the Fox would retain habitation and hunting rights (Horr 1974:122). Many Sauk and Fox who had not participated in the treaty, as well as neighboring tribes, such as the Sioux, felt that the treaty was invalid. As a result, cohesion within the Sauk and Fox tribes, as well as between them and their allies, became strained as both pro- and anti-American factions began to develop.

When the War of 1812 broke out between the Unites States and Britain, those Sauk and Fox who had formed a pro-American faction moved to the Des Moines area, leaving a group behind in the Quad Cities area that chose to side with the British during the conflict. The Sauk and Fox in the area were reinforced by a number of other Indian tribes who moved into the area temporarily during the war. These additional groups of people included representatives from the Piankeshaw, Kickapoo, Winnebago, Potawatomi, Ottawa, and Menominee tribes, keeping the local Indian population at around 2000 persons (Horr 1974: 170).

The Indians living in the Quad Cities area participated and were victorious in two battles during the War of 1812. On July 4, 1812, an American detachment of reinforcements for Prairie du Chien set out from St. Louis under the direction of John Campbell. They reached the Rock River in mid-July and were invited ashore by the native inhabitants. The Sauk and their allies had heard that Prairie du Chien had been recaptured by the British and decided to attack Campbell's detachment. On the morning of July 21, they surprised the Americans on an island just above the Rock River rapids, leaving 16 dead and 20 wounded. The island is now called Campbell's Island. On September 5 of the same year, Zachary Taylor led a retaliatory mission of 430 men and eight keelboats to level Saukenauk. The British commander at Prairie du Chien had received advance notice of the pending attack and had already dispatched reinforcements of 30 British soldiers, 100 Indians, two swivel-guns, and a three-pounder to support the Sauk population. This created a total of around 1000 men defending the village. On September 6, the Indians took the initiative and attacked the American forces at the head of Credit Island, forcing the latter to retreat and successfully saving Saukenauk from destruction (Weichman and Stack 1974:14-15).

Despite the valiant efforts of the Sauk and their allies, the British were defeated by the Americans and forced to retreat entirely from the area east of the Mississippi River and south of the Canadian border. The United States government caused a reaffirmation of the Treaty of 1804 to take place upon the close of the War of 1812. This resulted in the signing of the Treaty of 1816 at St. Louis (7 Stat. 141). The Sauk warrior, Black Hawk,

participated in this signing, but later claimed to have been duped by the Federal government. He began a movement among the Sauk and Fox to rebel against the United States government and to reclaim the lands that had been lost as a result of the treaty.

Not all of the Sauk and their allies agreed with Black Hawk's antagonism, however. In 1823, a large group of Indians, led by Chief Keokuk, moved across the Mississippi River and into upland Iowa. Black Hawk and his followers remained in Saukenauk. After an increasing amount of open hostility, General Gaines and his militia forced Black Hawk's band out of Saukenauk and into the Davenport-Bettendorf area in 1831. A series of short skirmishes followed in 1832, a period known as "Black Hawk's War," but the Indian resistance was not strong enough to withstand eventual American domination of the situation. On September 21, 1832, a new treaty signed by the Sauk (including Black Hawk), Fox, and Winnebago ceded six million acres of land on the west side of the Mississippi River. This treaty has become known as the "Black Hawk Purchase," and was signed in what is now Davenport, Iowa, on a spot near Farnam and Fifth Streets (Huebinger 1894; Weichman and Stack (1974:15). Later, in 1836, another treaty known as "Keokuk's Reserve" was also signed in the Davenport area. A local historian reports

> "The Treaty of 1836 was held at Davenport. The site is in doubt. Some of the older citizens place it on East River street, on the height between Bridge and Mississippi avenues; others say where Prospect park is located. Dr. E.S. Barrows, who was present at the treaty, gave the former location. He used to say that Black Hawk's camp was on the hills later known as Camp McClellan and now McClellan Heights" (Downer 1910(1):88).

The signing of the 1836 treaty effectively brought to an end the Indian occupation of the Quad Cities area.

The Quad Cities vicinity, while never again being the site of armed conflict, has continued to the present to support a military presence. Upon the site of the original Fort Armstrong was built the Rock Island Arsenal immediately prior to the Civil War. The Arsenal has variously served as a munitions manufacturing center, supply depot, prisoner-of-war camp, and administrative center since that time. Also, during and after the Civil War, a training camp, Camp McClellan, was set up in what is now East Davenport.

TRADE AND TRANSPORTATION

Apparently, the first commercial establishment in the Bettendorf area was Captain Benjamin Clark's sawmill, built in 1835 near the mouth of Duck Creek (Lage and Voelliger 1973:8). Another sawmill was built by Roswell Spencer at the mouth of Spencer Creek in 1836 and a saw and gristmill was operated at the mouth of Crow Creek by Stephen Henley (Iowa SHPO files, Iowa City). Other mills in the area included those built by John

Owen (1838) and Samuel and Wheeler Hedges (1837) (Abbott and McKay 1978:97). In 1855-56, Roswell Spencer built a steam-powered mill across from his home, but it did not operate long because of Spencer's financial ruin as a result of the 1857 panic. The limestone foundations of this mill still remain (Iowa SHPO files, Iowa City). It has been hypothesized that the mills failed when the local timber supplies were exhausted, cutting off the source of raw materials and changing the drainage patterns of the area to the extent that spring run-offs were no longer gradual enough to allow for a consistent power supply (Abbott and McKay 1978:98).

Another early industry in the Bettendorf area was the development of several limestone and gravel quarries. As discussed in the previous section of this report, these included the quarry adjacent to the proposed Bettendorf borrow area and a quarry, now destroyed, that was located near the mouth of Duck Creek. Vandruff's Island, in the Mississippi River, is continuing to function as a gravel quarry.

Until well into the twentieth century, most of the Bettendorf area remained very rural. A major farm commodity, especially from the Pleasant Valley area, was onions (Abbott and McKay 1978:124). In recent years, however, the Quad Cities area has become a major manufacturing center for farm implements. The J.I. Case, International Harvester, and John Deere Companies all have major manufacturing plants in the Quad Cities area.

Prior to the introduction of the railroads, the major form of transportation in the area was by way of the Mississippi River. Even at that, there was no regular river service until the 1860's and the channel remained unimproved until the 1890's. Because of the Rock River rapids, the Mississippi was closed six to seven months of the year and was often low at other times. Thus, the railroad was introduced into the area at a fairly early date; the Chicago-Rock Island line was completed by 1854 and the Davenport-Iowa City line by 1856. The bridge connecting the two lines was also completed in 1856. Later, the Iowa-Illinois railroad was built along the north shore of the Mississippi in 1899, and the Clinton, Davenport, and Muscatine line was completed in 1904 (Abbott and McKay 1978:92, 125). With the completion of the Corps of Engineers lock and dam at the Rock River rapids, barge traffic has provided a major source of freight transportation through the area.

RESEARCH GOALS AND METHODOLOGY

RESEARCH DESIGN

In terms of the practical aspects of this project, the major goal was to identify, document, and evaluate all cultural resources within the designated project areas. To achieve this goal, an inventory of both previously known and newly discovered sites was to be completed using background literature search, pedestrian survey, and shovel testing techniques. Upon completion of the inventory, all identifiable cultural resources were to be assessed in terms of their local and regional significance and their cultural integrity. The remainder of this report includes a discussion of the techniques used during completion of the fieldwork portion of this project, a description of the significance of all located cultural resources, and recommendations for further investigations in the area.

Theoretically, the major goal of this project was to further define the scope of prehistoric and historic settlement patterns in the Bettendorf vicinity through the comparison of any newly discovered site locations with those locations previously recorded for the area. Because of the relative incompleteness of the prehistoric record for the Bettendorf area, any locational information, in terms of both the presence or the absence of cultural resources, is important in shedding light upon the settlement patterns in the area. A related research goal was the analysis of any located cultural resources in terms of local environmental factors that may have had a determining effect upon the choice of site locations. Of especial importance in examining this research question were the differences exhibited by upland sites as opposed to sites located in the river bottoms. A discussion of these research topics as they relate to the results of the survey is also included in the following pages.

FIELD METHODS

The basic field method used during the survey was the combination of 100% pedestrian coverage of all exposed areas and the use of systematic and standardized shovel tests at 15 m intervals along 15 m transects in unexposed areas. In areas that were inaccessible, survey patterns were varied to allow the closest possible identification of site potential.

If a site was identified, it was determined prior to initiation of fieldwork that two separate procedures would be followed to delineate the site depth and integrity: 1) in exposed areas, artifacts were to be collected across the surface, with shovel tests at the boundaries to determine both surficial and subsurface site extent, and with a larger test unit near the center of artifact concentration to determine site depth and integrity; and 2) when a site was located by shovel testing in unexposed areas, additional tests were to be dug at 5 m intervals in transects along each of the cardinal directions until site boundaries were defined, with a larger test unit near the center of the site to again determine site depth and cultural integrity.

When a site was located, its location and boundaries were plotted on both the project map and the appropriate 7.5 minute USGS quadrangle map. All pertinent site information was recorded on standardized site survey forms from the Office of the Iowa State Archaeologist, Iowa City. Daily field records were also taken to provide further documentation for the survey results. All data were returned to the WAPORA archaeology laboratory in Cincinnati, Ohio, for processing and analysis.

In the proposed borrow area for the Bettendorf levee project (Project Area A), survey activity was completed in less than 1-1/2 days. The ground was generally exposed, having been in corn the previous summer, so a surface pedestrian survey was used to locate any cultural resources. Shovel tests were used intermittently to reinforce the results of the surface coverage, since the field had not yet been plowed and it was not known what might lay hidden beneath the surface. As the initial surface coverage was nearing completion, the son of the farmer who is renting the land from the city arrived to disk the field. It was decided that a second pedestrian survey would be conducted following the disking to locate any cultural material turned up by the disking. This was done the following morning, but no additional cultural material was observed. It had been hoped that even a third surface survey could quickly be made of the freshly disked field following a light rain to thoroughly document the artifact density of the site. This third survey was not done, however, because of the lack of a sufficient amount of rain in the area during the course of the survey period. Dirt roads and cutbank profiles adjacent to the field were also investigated for evidence of cultural material. The double survey of Project Area A resulted in the retrieval of several isolated non-diagnostic prehistoric artifacts and some recent historic cultural refuse. The degree of significance of these finds will be addressed in the next chapter.

The survey of Project Area B--the proposed Bettendorf levee right-of-way exclusive of already existing levee facilities--was conducted over a period of 1-1/4 days. Shovel tests were placed at 15 m intervals along the levee right-of-way from around Station 120 + 00 to the Davenport, Rock Island, and Northwestern Railroad right-of-way, and a combination of shovel tests and opportunistic surface coverage was used from the railroad right-of-way to Station 160 + 00. No sites were discovered during the survey of the levee right-of-way, although some recent historic cultural refuse was collected during the course of the survey.

ANALYTICAL METHODS

The prehistoric site in Project Area A was documented using the standard IOSA site survey form. Appended to the form is a Xeroxed copy of the relevant portion of the appropriate USGS quad sheet. All artifacts were washed, then classified using local taxonomies, if possible. Prehistoric lithic artifacts were classified according to raw material, degree of decortification, and evidence for use as a tool. Historic artifacts were classified using criteria emphasizing manufacturing technology, decoration, and function. The complete descriptive artifact inventory is included in Appendix B.

RESULTS OF THE SURVEY

The survey of the proposed borrow area for the Bettendorf levee project (Project Area A) resulted in the identification of one non-diagnostic prehistoric site (13 ST 74) within the project area. The site has been given an IOSA site number, although its cultural integrity is suspect for several reasons:

1) the few non-diagnostic artifacts that were found in the vicinity were recovered from spatially isolated areas, including slope wash from the roadbed, and do not present the appearance of an actual defined site,

2) all the prehistoric artifacts were found on the surface, and

3) shovel tests throughout the survey area and a larger test unit near the locations of two recovered artifacts failed to identify any additional cultural material or in situ cultural features.

Two possibly associated artifacts, a nodular core and a secondary flake, were found around 15 m apart on a southeast facing slope approximately 170 m from the Crow Creek channel. A hammerstone was found on the surface 152.4 m northwest of the two previously described artifacts. Finally, a possibly heat-treated secondary flake was discovered in the roadbed downslope and around 122 m north of the location of the hammerstone. A previous survey by Roy Eichhorn, Corps of Engineers archaeologist, also located a couple non-diagnostic prehistoric artifacts, but again, these were found in the roadbed over 100 m from the next nearest artifact location.

While these artifacts may indeed have been related to each other within one single site, their disparate locations and the lack of any observed subsurface cultural material would tend to indicate that the area was probably only used one or two times on an opportunistic, short-term basis, possibly to take advantage of the lenticular chert nodules eroding from the deeply entrenched Crow Creek valley. In terms of regional significance, the artifacts recovered from this area demonstrate additional use of the Crow Creek drainage in support of the arguments set forth by Abbott and McKay (1978), but provide no new or unique information on settlement of the area during the prehistoric period.

The shovel testing of the levee right-of-way (Project Area B) provided support for what had already been demonstrated by historical documentation (U.S. Army Corps of Engineers 1965:12) and the results of corings in the area--the lower portion of the right-of-way from Station 120 + 00 to the railroad tracks has been subjected to numerous successive episodes of flooding and/or filling. In some cases, the depth of the fill in the area exceeds 20 feet. On the other hand, the portion of the levee right-of-way north of the railroad tracks revealed, through shovel testing and pedestrian surface coverage, that extensive grading activities have taken place in the past and are continuing to occur. In most of the shovel tests that were dug, recent cultural refuse (i.e., plastic and styrofoam) was found resting directly on top of sterile subsoil. In those tests where topsoil was

still present, either no cultural material or material dating to no earlier than the 1940's was discovered. This agrees with plat maps of the area that indicate very little historic occupation of the area until the past 50 years. On the basis of these results, it can only be assumed that if prehistoric occupation of the area did take place, then it has been completely obliterated by recent urban development.

RECOMMENDATIONS AND CONCLUSIONS

The only previously recorded cultural resource to have been identified for either Bettendorf Local Flood Protection Project Area A or B is the nineteenth century stone and gravel quarry located on the east boundary of Project Area A. During the survey, one prehistoric site (13 ST 74) of indeterminate origin was discovered in Project Area A and no sites were located in Project Area B. The prehistoric site consisted of four non-diagnostic prehistoric artifacts scattered over an extremely large area, only two of which appear to be spatially related. Shovel tests and a larger test unit failed to reveal any additional cultural material or in situ features. The significance of this site lies only in its spatial relationship to other sites in the area, a fact that has already been recorded by the simple nature of locating the site. No further work is recommended at the site, and borrow activities should have little impact on any prehistoric cultural resources.

The historic significance of the stone and gravel quarry, as has been discussed on pages 12, 13, and 24 of this report, is in its role as a major commercial enterprise during the mid-nineteenth century and the fact that it is the earliest remaining documented quarry in the area. The re-opening of the quarry during the 1950's and 1960's has little effect upon its historic significance as the earliest known example of this type of industry in the Bettendorf area. In fact, the repeated use of this quarry through time provides additional support for a determination of its significance on the basis of its role in the continued economic development of the area. If at all possible, it should be avoided during the soil removal activities. If an impact to the quarry is unavoidable, however, then the Corps of Engineers should request a determination of eligibility to the National Register of Historic Places on the basis of its importance to the nineteenth century commercial development of the area. If the quarry is considered eligible to the National Register, then a suggested mitigation of adverse effects to the site as a result of the borrow activities should include a thorough historical documentation of the quarry and its role in the regional economic development, measurement of its dimensions, and a photographic record of the quarry and its surroundings.

No significant cultural resources, either historic or prehistoric, were located during the survey of Project Area B. Therefore, the construction of the levee should have no effect upon the cultural documentation of the area.

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APPENDIX A

SCOPE OF WORK AND VITAE OF KEY PERSONNEL

December 1979

SCOPE OF WORK
FOR
ARCHAEOLOGICAL SURVEY OF
LOCAL FLOOD PROTECTION PROJECT
BETTENDORF, IOWA

I. Survey Objectives

The purpose of this contract is to locate and assess, for possible inclusion in the National Register of Historic Places, archaeological sites which may be impacted by the construction and operation of the Bettendorf local flood protection project (see Exhibit I). This action is being taken to assure compliance with NEPA, EO 11593, 33 CFR 305, 36 CFR 63, 36 CFR 800.10 and the National Historic Preservation Act of 1966.

II. Specific Requirements

1. The Contractor shall review the pertinent literature on the area and contact the following organizations and people:

Iowa State Historic Preservation Officer
Iowa Office of the State Archaeologist
Quad Cities Archaeological Society
Local collectors with knowledge of the area

It is also expected that other sources of information will be consulted and that the pertinent information obtained will be documented in the draft and final report.

2. The Contractor shall perform an initial survey of sufficient quality to locate any sites likely to be impacted by the project. This will include shovel testing and coring in areas where surface visibility is limited.

3. In addition to the requirements of items 1 and 2, the Contractor shall perform a cultural resource survey of sufficient scope and quality to allow for the determination of eligibility for each site to the National Register of Historic Places. This is to be done as defined in 33 CFR 305.4f, 36 CFR 63, and 36 CFR 800.10.

4. Recommendations shall be made by the Contractor for mitigation for any site determined to be eligible or to have potential for inclu[illegible]n on the National Register that is likely to be impacted by this project. Estimates of time and labor required for data recovery and an explanation of how these figures were arrived at shall be included in the recommendations.

5. The principal investigator will submit a research design within 15 days of award of the work order and prior to commencing field work. The research design will include the strategy to be employed in the survey and formulate research questions that the survey will be designed to answer. The Contracting Officer will notify the Contractor of approval of the research design at which time literature search may commence. Field work will not start until notice to proceed is issued by the Contracting Officer. The Rock Island District will furnish the Contractor a letter of introduction which will establish the identity of his representatives as contractors for the Corps of Engineers. The Contractor will be responsible for obtaining permission to enter on any privately-owned property for the purpose of performing field investigations.

6. Basic data description, including provenience and metrics, U.T.M. coordinates for all sites, photographs, and drawings will be provided for use both in support of the author's arguments and conclusions, and as a source of basic information that may find wider use by other archaeologists. A set of USGS maps showing the specific site locations will be provided by the Contractor but shall not be included in the report. At least three good quality photographs of archaeological work in progress and a written summary suitable for public meetings will be provided by the contractor.

7. The Principal Investigator shall be responsible for preparing a report on these investigations. This report shall include, but not be limited to: 1) detailed cultural site location in respect to project location; 2) possible cultural affiliations; 3) classification of sites into effect or no effect categories in respect to impact of the action on them; 4) recommendation of either further investigation, data recovery, preservation, or no further work, for each site impacted by the project; 5) a discussion specifically addressing the question of eligibility to the National Register for each site likely to be impacted by construction according to the criteria set forth in 36 CFR 63, Appendix A; 6) pertinent information from the literature search; and, 7) documentation of coordination with groups listed in item 1.

8. The report shall further include but not be limited to the following items:

Title Page
Abstract
Table of Contents
Introduction
Environmental Setting
Soil Analysis
Review of Literature
Interviews with Local Collectors
Methodology/Research Plan
Analysis
Research Results
Location for Curation of Artifacts of Each Site
Statement of Significance
Conclusions
Bibliography
Appendices and Maps

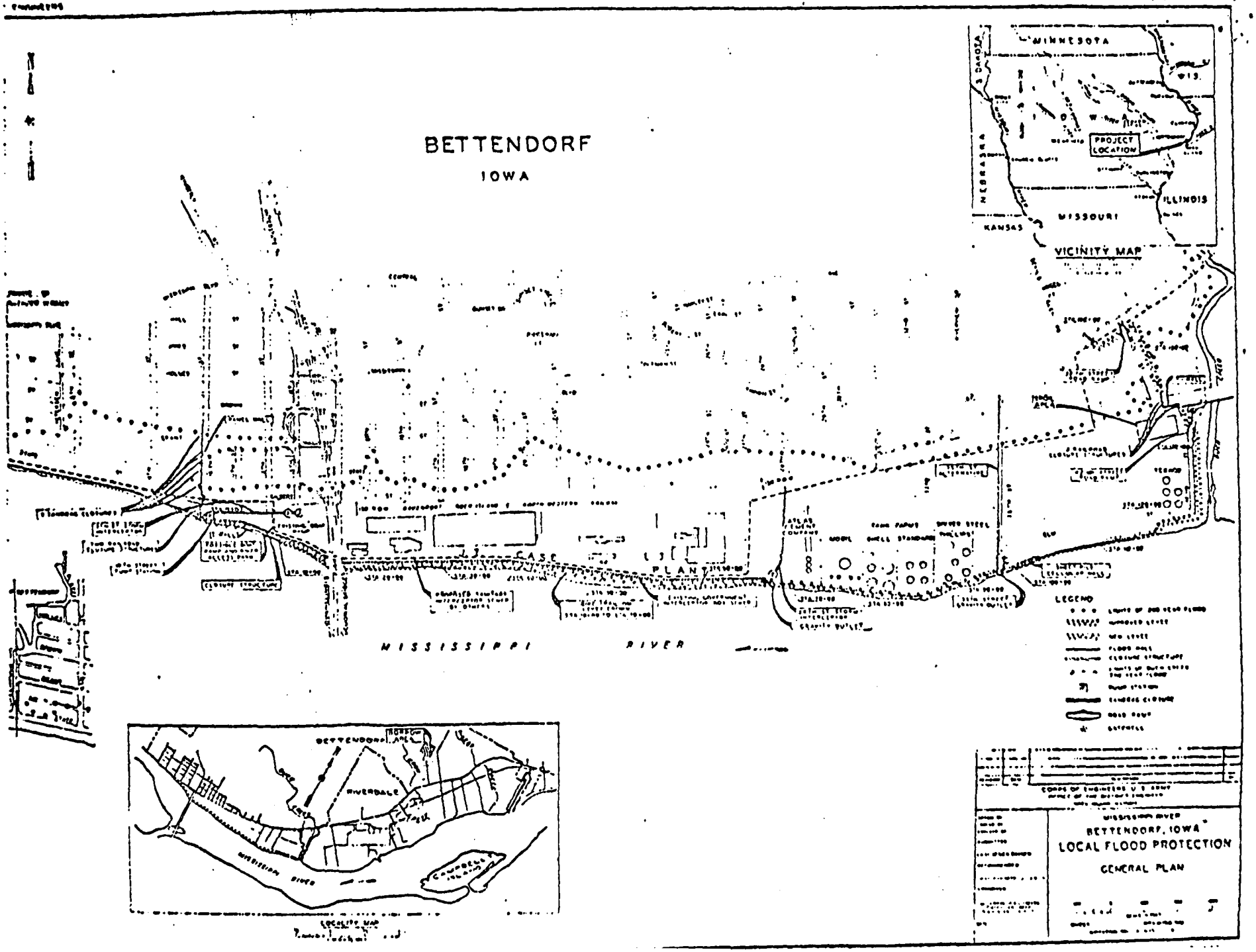
This scope of work and vitae of principal investigator, project director and/or field director will be included as an appendix to the report as will a schedule of field and lab work. The Contractor shall not refer to specific site locations in the body of the report. These references will be listed in an appendix.

9. Any artifacts or cultural material collected during the survey shall be deposited with a recognized institution for preservation upon completion of the contract, in coordination with the Heritage Conservation and Recreation Service. Artifacts will remain the property of the US Government.

10. The draft report is required to be submitted to the Contracting Officer within 30 days after notice to proceed. The Contracting Officer will have 90 days to review the draft report. The final report is required 30 days after receipt of the Contracting Officer's comments on the draft report. The final report shall include as an appendix any letters of review received on the draft report. The Contractor shall furnish the Corps of Engineers with 6 copies of the draft report and 15 copies of the final report.

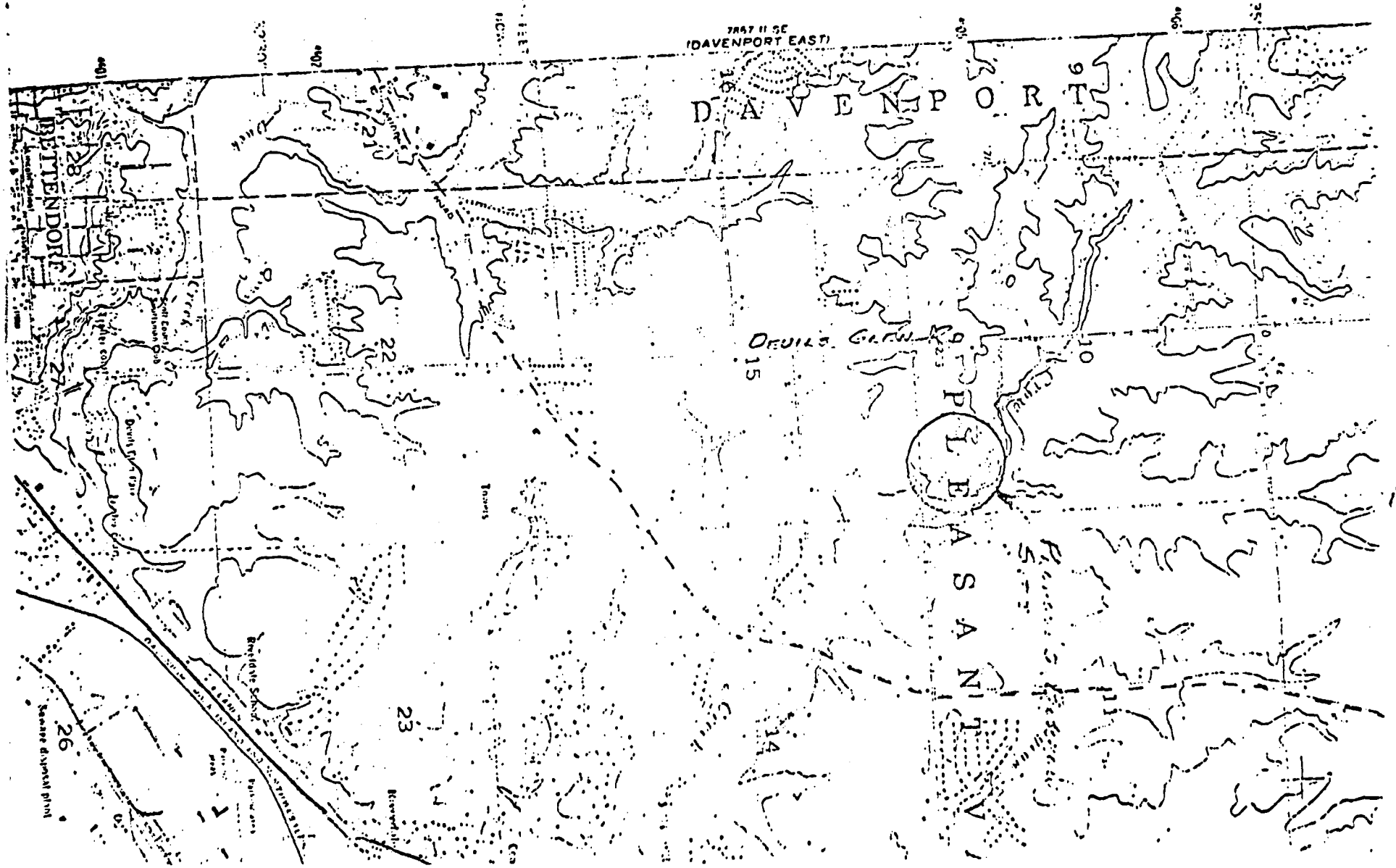
11. Neither the Contractor nor his representative shall release any sketch, photograph or report, or material of any nature, obtained or prepared under the contract, without prior specific written approval of the Contracting Officer, prior to the acceptance of the report by the Government. After acceptance of the final report its reproduction and use shall not be restricted by either party. The appendix containing the exact site locations will not be included in reports released to the public.

1 Exhibit
As stated


BETTENDORF
IOWA
MINNESOTA
WISCONSIN
NEBRASKA
S. DAKOTA
PROJECT LOCATION
ILLINOIS
MISSOURI
KANSAS
VICINITY MAP
CASE PLANT
MISSISSIPPI RIVER
LEGEND
BETTENDORF
RIVERDALE
MISSISSIPPI RIVER
COMPROMISE ISLAND
LOCALITY MAP
COPPS OF ENGINEERS U.S. ARMY
MISSISSIPPI RIVER
BETTENDORF, IOWA
LOCAL FLOOD PROTECTION
GENERAL PLAN

Silvis - Illinois, Iowa

7.5 min. Quad.



WAPORA, Inc.

ENVIRONMENTAL/ECONOMIC/ENERGY STUDIES

résumé

Marlesa A. Gray
Archaeologist
Cincinnati Regional Office

EDUCATION

B.A. in Anthropology with high honors, 1975, Indiana University, Bloomington
M.A. in Anthropology, 1978, Michigan State University, East Lansing
Doctoral candidate in Anthropology, Michigan State University

EXPERIENCE

Ms. Gray joined the WAPORA, Inc. staff in 1979. She specializes in both archaeological and architectural investigations and has had extensive training and experience in the fields of historical archaeology, archival research, and folk studies, both oral and material. She is familiar with the prehistoric cultural resources of the Ohio Valley and the Great Lakes. Ms. Gray has had experience in the preparation of National Register nomination forms and is cognizant of all historic and cultural resource preservation legislation. Ms. Gray has worked on urban archaeological sites and architectural recording projects throughout the eastern United States. She has also directed and/or participated in historical archaeological investigations on sites dating from the eighteenth century to the World War II era.

Prior to joining WAPORA, Ms. Gray was a student intern with Interagency Archeological Services-Atlanta, Heritage Conservation and Recreation Service, Department of the Interior. During her 17-month internship, Ms. Gray was involved in all aspects of government contracting as it relates to historic preservation and cultural resource management. This included the evaluation of significant resources, the preparation of mitigation plans and scopes-of-work, the evaluation of proposals, the writing and administration of contracts, field and laboratory monitoring, and reviewing reports. Ms. Gray also participated as a liaison between other government agencies and their archaeological contractors, as well as helping other agencies to develop their own historic preservation programs. During her tenure with IAS-A, Ms. Gray was instrumental in the development of several archaeological testing and mitigation strategies for extensively altered, urban site locations, in New Orleans, Louisiana, and in Charleston, South Carolina.

While at IAS-A, Ms. Gray was responsible for the planning and implementation of an interdisciplinary program for the development of an historical overview and oral history study of the proposed Pine Ford Lake project area, Washington, Jefferson, and St. Francois Counties, Missouri. This was done in conjunction with the St. Louis District Corps of Engineers. During the period of her employment at IAS-A, Ms. Gray participated in an architectural inventory of the Big River basin, Missouri, and excavations at two historic sites in Greenwood County, South Carolina. She also served as an historic ceramics analyst, on a consulting basis, for archaeological projects in Mississippi and South Carolina.

Ms. Gray is familiar with the prehistory, history, and ethnography of the Columbia River basin and adjacent areas in Washington, Oregon, and Idaho. From 1976 to 1978, Ms. Gray prepared the final report of archaeological investigations at the Fort Vancouver National Historic Site, Vancouver, Washington, under a contract with the National Park Service. This report, incoporating the data from ten field seasons at the site, was submitted for publication to NPS in 1979.

In 1976, Ms. Gray served as the Assistant Field Director for the Sault Ste. Marie Archaeological Project, Sault St. Marie, Michigan. This project was concerned with the excavation of two historic sites: an eighteenth century French trading post, Fort de Repentigny, and a nineteenth century American military post, Fort Brady. In 1975, Ms. Gray directed the archaeological investigations at the Brouillette House, Vincennes, Indiana. Excavations at the standing eighteenth century French house were centered around the identification of the original exterior structural features of the house and the investigation of the cellar deposits. Ms. Gray was also involved as Field Director with the Indiana Junior Historical Society archaeology workshops from 1973 to 1975.

Ms. Gray is skilled in the use of the transit, photography, and graphics equipment, flotation and sonar separation techniques, and keypunch. She received her field training at Indiana University, Bloomington, Indiana.

HONORS RECEIVED

Alpha Lambda Delta
Hoosier Scholar
Metz Scholar, Indiana University
Phi Beta Kappa

PROFESSIONAL AFFILIATIONS

Society for Historical Archaeology
Society for American Archaeology
Indiana Historical Society

PUBLICATIONS AND REPORTS

Gray, M. 1974. The Pennville Project. Indiana History Bulletin.

Gray, M. 1975. Preliminary report of excavations at Brouillette House, Vincennes, Indiana. Glenn D. Black Laboratory of Archaeology, Indiana University.

Gray, M. 1980. Archaeological survey and testing, Moline Local Flood Protection Project, Rock Island County, Iowa. WAPORA, Inc., Cincinnati, Ohio.

Gray, M. 1980. Archaeological survey and testing, Bettendorf Local Flood Protection Project, Scott County, Iowa. WAPORA, Inc., Cincinnati, Ohio.

Gray, M., G.M. Watson, and W.K. Pape. 1980. Cultural resources survey of 24 miles of proposed pipeline right-of-way, Washington County, Ohio. WAPORA, Inc., Cincinnati, Ohio.

Gray M. In press. Structural aspects of Fort Vancouver, 1829-1860: An historical-archaeological interpretation. National Park Service.

Barbara R. Huels
Assistant Archaeologist
Cincinnati Regional Office

EDUCATION

B.A. in Anthropology, 1978, University of Cincinnati, Cincinnati, Ohio
Graduate Program in Anthropology, 1978-1980, University of Cincinnati, Cincinnati, Ohio

EXPERIENCE

Ms. Huels joined the WAPORA, Inc. staff in August 1980. Her undergraduate training has been in physical and cultural anthropology with special emphasis on archaeology. In addition, her studies in a wide range of biological and physical sciences have enabled her to use a broad based approach to cultural resource investigations. She is currently a candidate for the Master's Degree in Anthropology. Her thesis research combines medical data with physical and cultural anthropology to produce a model of the interactions between culture, biology, and environment in a tuberculous population. As a graduate research assistant, Ms. Huels (with Anthony Perzigian) was involved in chemically extracting remains of tubercle bacilli from tuberculous-like lesions on skeletal material from the Turpin Site, Ohio.

Prior to joining WAPORA, Ms. Huels was a summer intern with the Ohio Historic Preservation Office, on assignment to the South Central Ohio Regional Archaeological Preservation Office, housed in the Cincinnati Museum of Natural History. Here she directed archaeological reconnaissance and survey, laboratory analysis, and report writing for two kilometer-square areas in Highland County. This report is part of a six-county investigation to produce predictive models for archaeological and cultural resource site locations in south central Ohio, to be used by planners and developers. She also supervised volunteer crews on an Ohio River floodplain survey in Scioto County. With working in a Regional Preservation Office, Ms. Huels has had contact with state and federal cultural resource preservation legislation, as well as compliance and review procedures.

Field experience during her education at the University of Cincinnati brought Ms. Huels into contact with many phases and aspects of archaeological research and investigation. Her field experience includes long term research projects as well as prehistoric site testing and cultural resource surveying. Between 1976 and 1977, she served as a crew member and instructor during archaeological investigations at the Incinerator Village Site, under the direction of J. Heilman. In the summer of 1978, she was a participant in the Salmon Ruins Research Project, Eastern New Mexico University, directed by Dr. Cynthia Irwin-Williams. In 1979, Ms. Huels was a crew member on the Ohio Historical Society, Gallia County highway right-of-way test pit survey, a contracted

cultural resources survey for Ohio Department of Transportation. In the spring of 1980, she assisted Marlesa Gray, WAPORA, Inc., with two cultural resource survey and testing projects located in Bettendorf, Iowa and Moline, Illinois, contracted by the U.S. Army Corps of Engineers, Rock Island District.

HONORS RECEIVED

Trainee in Physical Anthropology, University of Cincinnati, 1979-1980
Charles Phelps Taft Graduate Fellow in Anthropology, University of Cincinnati, 1978-1979
Phi Beta Kappa, University of Cincinnati, 1978
August F Foerste Associate, Dayton Museum of Natural History, 1976

PROFESSIONAL AFFILIATIONS

Ohio Archeological Council

REPORTS

Huels, Barbara R. 1980. A survey report of two SCORAPO sample units in Highland County, Ohio. On file at the Ohio Historic Preservation Office, Ohio Historical Society, Columbus.

APPENDIX B

DETAILED ARTIFACT INVENTORIES FROM THE TWO PROJECT AREAS

APPENDIX B
DETAILED ARTIFACT INVENTORIES

PROJECT AREA A - prehistoric site 13 ST 74 and roadbed

Lithics (Site 13 ST 74):

1 nodular chert core
90 mm X 65 mm X 35 mm
1 pitted hammerstone
75 mm X 65 mm X 27 mm
2 secondary flakes (1 possibly heat-treated)

Historic Ceramics:

1 drainage tile sherd
1 red earthenware sherd with a clear lead-glazed exterior and a white slipped and clear lead-glazed interior
9 whiteware sherds with brown and black hand-painted decoration
1 plain porcelain sherd
1 "skeet" fragment

Historic Glass:

2 clear glass vessel fragments
1 green vessel fragment

PROJECT AREA B - fill deposits between Mississippi River and railroad right-of-way

Historic Ceramics:

1 white stoneware sherd with clear lead-glazed exterior and brown lead-glazed interior

Historic Glass:

1 fragment clear window glass

Other:

4 mussel shell fragments

PROJECT AREA B - between railroad right-of-way and State Street

Historic Ceramics:

1 porcelain sherd with blue hand-painted decoration
1 black bathroom tile

Historic Glass:

7 window glass fragments
14 clear vessel fragments
8 brown vessel fragments
1 opaque white vessel fragment
1 thick mirror fragment
1 clear bottle stopper

Historic Metals:

1 pc. aluminum foil
1 wire nail fragment
1 large iron washer with associated wire nail

APPENDIX C

REVIEW COMMENTS ON THE DRAFT REPORT

c.c. M. Gray
J. Johnson
B. Huff

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61201

REPLY TO
ATTENTION OF:
NCRED-PB

Mr. Bernard L. Huff
Wapora, Inc.
5700 Hillside Avenue
Cincinnati, Ohio 45233

Dear Mr. Huff:

We have completed the review of the draft report entitled "Archaeological Survey and Testing, Bettendorf Local Flood Protection Project, Scott County, Iowa" and are, on the whole, pleased with it. Please address the following comments in the final version.

a. The possible "site" identified in the borrow area should be numbered and recorded using the Iowa State Archaeologists' system (see SHPO's comment #2).

b. The discussion of the stone quarry needs to be expanded considerably so that it can serve as the basis for a determination of eligibility. The impact of recent quarrying activity on the historical integrity of the quarry should also be considered.

Please note the SHPO's comments and respond accordingly. Copies of these are inclosed for inclusion in the appendix of the final report.

Do not hesitate to call if you would like clarification on anything. As we said, we are pleased with the draft and look forward to the final.

Sincerely,

F. W. Collins

1 Incl
As stated

F. W. COLLINS
Authorized Representative of the
Contracting Officer

IOWA STATE HISTORICAL DEPARTMENT
DIVISION OF HISTORIC PRESERVATION

ADRIAN D. ANDERSON, DIRECTOR
STATE HISTORIC PRESERVATION OFFICER

July 29, 1980

Mr. Doyle W. McCully, Chief
Engineering Division
US Army Corps of Engineers
Clock Tower Building
Rock Island, Illinois 61201

Re: NCRED-PB; review and comment on DRAFT "Archaeological Survey and Testing, Bettendorf Local Flood Protection Project, Scott County, Iowa"

Dear Mr. McCully:

The opportunity to review and comment on the above referenced draft report is appreciated. Our comments are as follows:

1. the reconnaissance survey of the proposed borrow area (Project Area A of the report) is described on page 26. Following an initial survey of the area a second inspection was made after the area had been disced. While the results of the initial survey are convincing enough, the reliability placed by the investigator on the results of the second survey are, in our opinion, dubious. This is because the area was apparently surveyed after the area was freshly disced. This would tend to obscure almost everything and should not be taken as an accuarate indicator of potential artifact density.

2. the possible "site" discovered during reconnaissance of Project Area A (of this report) does not appear to have been assigned a number. We request that this be done (via the Office of State Archaeologist). The interpretation of the site is another matter. We agree with the investigator's interpretation on page 27 of the report. These interpretations should be noted on the site sheet.

3. the reference to Griffin's Archeology of Eastern United States included in the "References Cited" section under J. W. Bennett, is not correct. The title of Griffin's work is correctly shown here.

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TELEPHONE (319) 353-4186 / 353-6949

4. Figures 1 and 2 in the copy provided for review are almost undecipherable, probably because of poor quality originals used to generate these copies. Hopefully these can be markedly improved upon for the final version of the report.

5. the two map figures included with the scope of work are not decipherable. Perhaps clean, clear, copies of these could be provided to the investigator for inclusion in the final version of the report.

With general regard to the technical quality of the report, the report in my opinion is one of the better examples of draft reports we have reviewed for your agency. The field work and background research appear to have been exceptionally thorough and the technical aspects of the report are very good.

In your letter of July 3, 1980 you requested that we also comment on the adequacy of the recommendations contained in the report. We note that Item 3 of the scope of work requires survey work of sufficient scope and quality to allow for the determination of eligibility for each site which may meet criteria of significance for listing in the National Register of Historic Places.

In comment (2) above we agreed that the possible "site" is properly interpreted by the investigator. It does not appear to us that this site would meet the criteria of significance.

With regard to the stone quarry mentioned in the "Recommendations and Conclusions" on page 29 of the report, the only information we could find in the report in support of the recommendation is one paragraph on page 24. The author implies on page 29 that the stone quarry appears to meet criteria of significance and states that it should be avoided if possible. The alternative is offered that if the quarry can not be avoided the Corps of Engineers should seek a formal determination of eligibility. It does not appear to us that sufficient information is provided to support a finding of potential significance of the quarry. If it is not of significance avoidance is not justified. The documentation in support of the investigator's conclusion does not appear to be in the report. In my opinion this aspect of the report does not conform to Item 3 of the contracted scope of work. Documentation for this conclusion should follow the guidelines included with 36 CFR 63.

We look forward to receiving the final version of the report. If there are any questions please do not hesitate to contact me or my staff.

Sincerely,

Stan Riggle / for

Adrian D. Anderson, Director
State Historic Preservation Officer

cc: Roy Eichhorn, COE

United States Department of the Interior
HERITAGE CONSERVATION AND RECREATION SERVICE
INTERAGENCY ARCHEOLOGICAL SERVICES—DENVER
P.O. BOX 25387, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO:

JUL 21 1980

1201-05(W530)

Mr. Doyle W. McCully
Chief, Engineering Divison
Department of the Army
Rock Island District
Corps of Engineers
Clock Tower Building
Rock Island, IL 61201

Dear Mr. McCully:

We acknowledge receipt of a draft copy of the technical report entitled, "Archaeological Survey and Testing, Bettendorf Local Flood Protection Project, Scott County, Iowa." We regret that we are unable to review this report in response to your request of July 2, 1980. The impending regionalization of Interagency Archeological Services has effectively curtailed our capabilities for peer review and coordination activities. Enclosed please find the copy of the subject report.

Sincerely

Jack R Rudy
Chief, Interagency
Archeological Services - Denver

Enclosures

APPENDIX D

IOSA SITE FORM FOR PROJECT AREA A

OFFICE OF STATE ARCHAEOLOGIST
EASTLAWN BUILDING
THE UNIVERSITY OF IOWA
IOWA CITY, IOWA 52242

IOWA SITE RECORD

OFFICIAL SITE NUMBER 13 ST 74

ACCESSION NUMBER 982-74

1. County Scott Local site name

UTM Coordinates
Zone 15
E710420N4604835
E710340N4604980

2. Range 4E Township 78N Section 10

3. On the ¼, NE ¼, SW ¼, SE ¼, SE ¼.
¼, SE ¼, NW ¼, SE ¼, SE ¼.

4. Type of site Prehistoric Maps used Silvis quad, COE project map Bettendorf borrow area

5. Tenant Mr. Seligman Address

6. Owner City of Bettendorf Address

7. Informant Address

8. General location of site in relation to streams, bluffs, river terraces, including modern landmarks such as roads and houses.
~170 m W of Crow Creek, east of transmission line and west of Crow Creek quarry in field adjacent to Crow Creek Recreation Park

The four prehistoric artifacts were found in isolated areas of the field, from 15 m to 200 m apart. No artifacts were found during shovel test excavations.

Estimated site size 400 m X 200 m

9. Present condition plowed; in corn

10. Previous excavations none

By whom Address

11. Material collected: a. Bone

b. Stone 1 nodular chert core, 1 hammerstone, 2 secondary flakes

c. Pottery

d. Other recent historic ceramics and glass

Owner U.S. Corps of Engineers Address Rock Island, Illinois

12. Method of collection surface pedestrian survey and shovel tests

13. Other material reported 2 undiagnostic lithic fragments

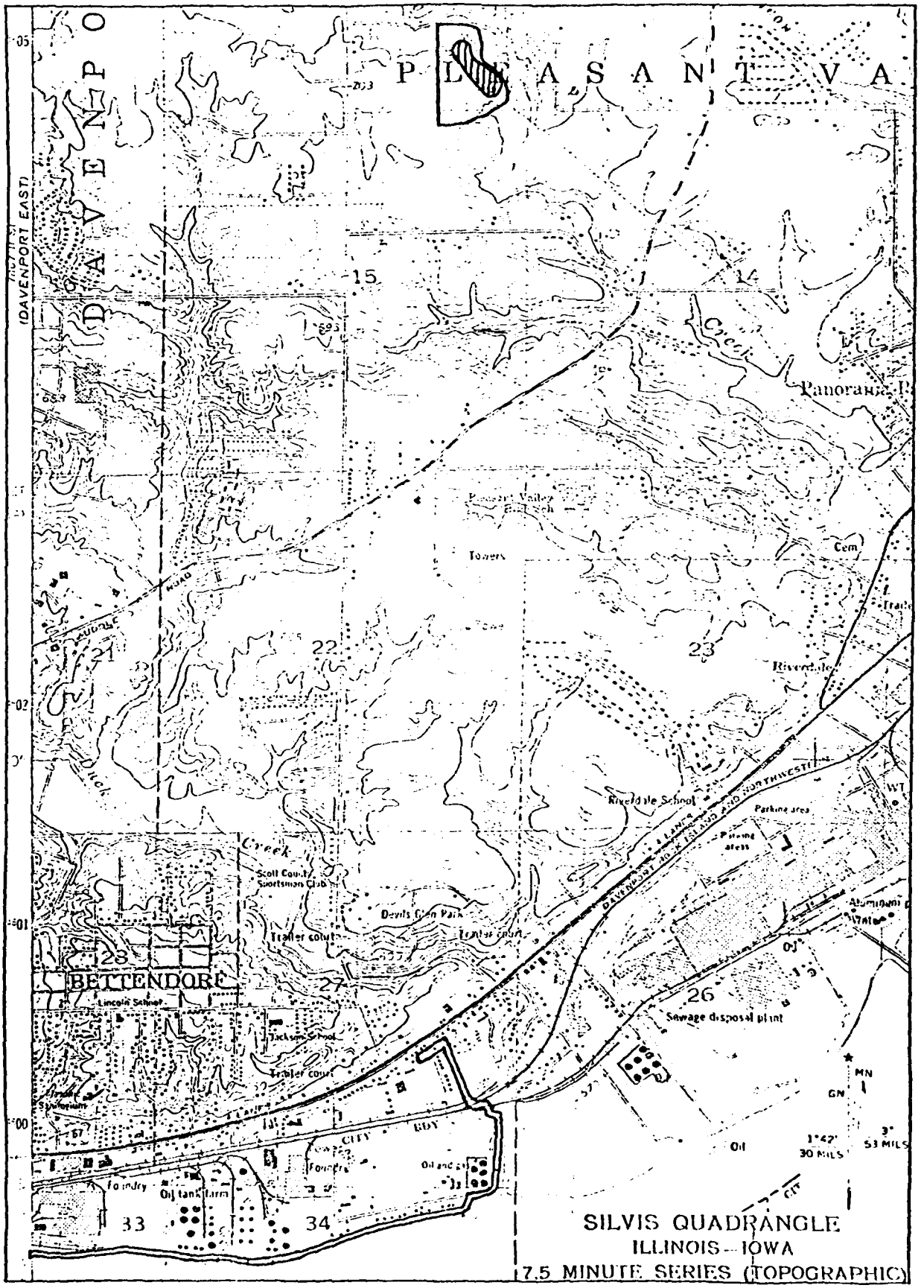
Owner U.S. Corps of Engineers Address Rock Island, Illinois

14. Recommendations The site does not appear to be significant. A 100% surface (over)

15. References

16. Recorded by Marlesa Gray Address WAPORA, Inc. 5700 Hillside Ave., Cinti, OH 45233

17. Date recorded 5/2/80 Contract Completion Report/ Research Paper


PLEASANT VA
DAVENPORT
(DAVENPORT EAST)
15
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BETTENDORF
Creek
Scott County Sportsmen Club
Devils Glen Park
Trailer court
Riverdale School
Parking area
Sewage disposal plant
Foundry
Oil tank farm
Oil
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7.5 MINUTE SERIES (TOPOGRAPHIC)